

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 97-108-E - ORDER NO. 97-249
APRIL 1, 1997

IN RE: Application of South Carolina Electric) ORDER
& Gas Company for Utility Facility) GRANTING
Siting and Environmental Protection) EMERGENCY
Act Certificate.) CERTIFICATE OF
) PUBLIC
) CONVENIENCE AND
) NECESSITY

This matter comes before the Public Service Commission of South Carolina (the Commission) on the Petition of South Carolina Electric & Gas Company (SCE&G or the Company) for an Emergency Certificate of Public Convenience and Necessity to be granted pursuant to S.C. Code Ann. Section 58-33-110(6)(1976). The Company requests an Emergency Certificate approving the construction of an upgrade to its Lyles Substation (the Facility) to increase the capacity of that Facility from its current 115kV to that of a 230/115 kV substation. SCE&G states that this action is necessary to avert potential catastrophic electrical failure for significant portions of the Columbia area. The Company also states that any impact to the environment will be insignificant.

SCE&G notes that the Facility is a major substation for serving critical electrical loads in the Columbia area, and has included two illustrative maps with its Application.

Recent load studies conducted by SCE&G reveal that, in the summer of 1996, the Columbia area peak customer demand was 1,495 MW. This represents 40.4% of the entire SCE&G summer peak load of 3,698 MW. Historically, the SCE&G load distribution has been roughly one-third (1/3) in the Columbia area, one-third (1/3) in the Charleston area, and one-third (1/3) for all the remaining areas. According to the Company, over the past eight (8) years, the Columbia area annual electrical load growth has been averaging a strong 5%, far outstripping the growth of other areas and the system as a whole, and leading to the conclusion that loads on the Lyles substation will become unacceptably high by the coming winter peak, therefore requiring the planned upgrade.

According to SCE&G, even if immediately undertaken, the completion of the upgrade will be very difficult to complete before arrival of the 1997-98 winter peak. According to SCE&G, if delayed by the normal regulatory process, under the Siting Act, it will be virtually impossible. From a planning perspective, because of licensing restrictions placed on the operation of Saluda Hydro, certain environmental conditions affecting the availability of the Saluda plant, and the likelihood that the reliability of supply from the Saluda Hydro will degrade rather than improve with time, according to SCE&G, it is no longer acceptable to assume Saluda Hydro's availability as a "given" in system planning scenarios. Consistent with current system reliability dictates, SCE&G must assume the possible unavailability of the Saluda plant.

SCE&G then points out several scenarios which could occur if the Saluda Hydro plant is unavailable. It notes that any outage of one of the two transmission lines between Denny Terrace and Lyles substation will likely cause severe overloading of the remaining Denny Terrace to Lyles line, especially if the failed line is the larger of the two. Computer simulations of this overload condition confirm that the overload may exceed 25%. If this occurs, the overloaded line will remove itself from service via a self-protecting system. If this occurs, a cascading failure will occur. Should these failures occur, the voltage on the electrical system serving the downtown Columbia area will be depressed to the point that electrical motors and sensitive electrical equipment, such as computers, will be at risk, and customer loads will begin to trip, creating service interruptions in the downtown Columbia area. According to SCE& G, should the Lyles substation upgrade not be complete prior to the winter peak for 1997-98, with the expected load growth in the Columbia area now until then, the risks for the occurrence of cascading failures as described become unacceptably high.

SCE&G further notes that the Facility will be co-located on an industrial site on which is located the existing Lyles substation as well as a propane tank farm. Some propane-air facilities already have been moved to make room for the substation upgrade. SCE&G has coordinated the relocation of these propane facilities and the orientation of the substation upgrade with the Commission Staff to insure that there will be no compromise of gas

safety requirements.

It should be noted that the Facility site already contains multiple electrical transmission lines and equipment, and much of the construction will take place within the transmission line corridors across the parcel. The Company notes that, except for sediment control ordinance requirements applicable to any earth disturbing activities, no environmental permits are required for the construction of the Facility, independent of the Commission certification process. There will be no wetlands disturbance, no air emissions, no liquid effluent discharges, and no stormwater control issues other than the sediment issues cited above. Because the property is already in heavy industrial use, there will be very little incremental environmental impact.

SCE&G also states that, should the Commission grant a Certificate, that, pursuant to the statute, it may subsequently require a modification of the Facility, if, after giving consideration to the major utility facility available technology and economics involved, it finds such modification necessary in order to minimize environmental impact.

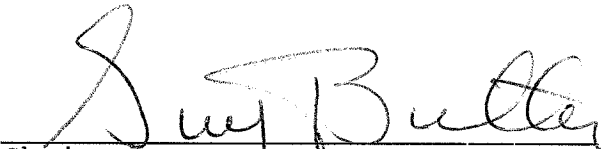
We have examined the circumstances as set out by the Petition of the Company, and we believe that the Certificate of Public Convenience and Necessity should be granted on an emergency basis. We believe, after examining the Company's Petition, that immediate construction of a major utility facility is justified by the public convenience and necessity, since the potential exists for a strong overload of the Lyles substation, and resulting cascading

failure. We note that the lines involve the downtown Columbia area, and that should we not grant this Certificate, the cascading failure could cause damage to various motors and sensitive electrical equipment, as well as service disruptions in the downtown Columbia area.

We note that the appropriate notice required by the statute has been given, and accordingly, pursuant to S.C. Code Ann. Section 58-33-110 (6), we grant the Certificate of Public Convenience and Necessity on an emergency basis.

This Order shall remain in full force and effect until further Order of the Commission.

BY ORDER OF THE COMMISSION:


Chairman

ATTEST:


Executive Director

(SEAL)